

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
31 January 2002 (31.01.2002)

PCT

(10) International Publication Number
WO 02/08087 A2

- (51) International Patent Classification⁷: B65D 83/08
- (21) International Application Number: PCT/US01/21983
- (22) International Filing Date: 12 July 2001 (12.07.2001)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
09/619,158 19 July 2000 (19.07.2000) US
- (71) Applicant (for all designated States except US): CON-
FAB SERVICES, AG [CH/CH]; Schwertzstrasse, No. 9,
CH-8200 Schaffhausen (CH).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,
ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian
patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European
patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,
IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

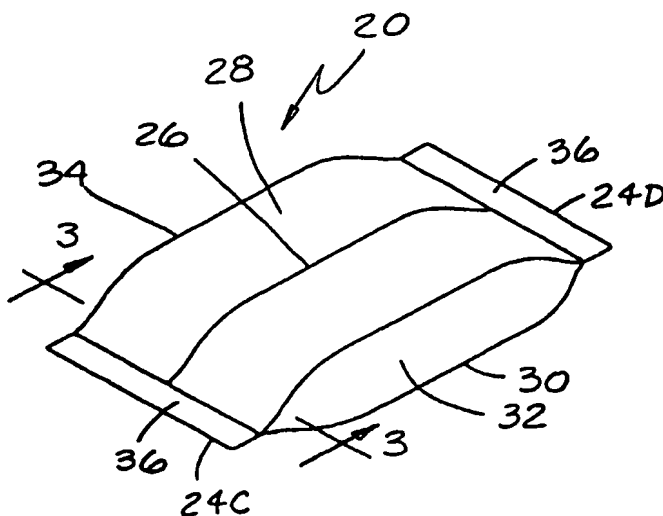
- (71) Applicant and
- (72) Inventor: LEVY, Ruth [US/US]; 46 Basswood Court,
Collegeville, PA 19426 (US).
- (74) Agent: STEIN, Barry, A.; Caesar, Rivise, Bernstein, Co-
hen & Pokotilow, Ltd., 12th floor, Seven Penn Center, 1635
Market Street, Philadelphia, PA 19103-2212 (US).

Published:

— without international search report and to be republished
upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: PACKAGE FOR CARRYING PLURAL PANTLINERS



(57) Abstract: The combination of a package and plural absorbent pads, e.g., pantliners. The pads are folded and stacked on top of one another. The package includes an openable mouth, so that the user can grasp one of the pads to remove it from the package. The pads of the stack of may be interleaved so that removal of one pad from the package brings a portion of another pad to the mouth to facilitate the removal of that other pad from the package.

WO 02/08087 A2

PACKAGE FOR CARRYING PLURAL PANTILINERS**SPECIFICATION****FIELD OF THE INVENTION**

This invention relates generally to disposable absorbent articles and more specifically to packages of disposable absorbent articles, such as pantliners, to keep them clean, but readily removable from the package when desired for use.

BACKGROUND OF THE INVENTION

Heretofore the packaging of pantliners, sanitary napkins, and other sanitary absorbent articles which are designed for storage in a user's purse to keep them clean until needed has been accomplished by individually wrapping each absorbent article in its own package. Typically this is accomplished by folding each of the absorbent articles and then wrapping each individually in either a plastic film or paper stock. The plural individually wrapped articles may then be packaged in a carton or a flexible plastic film bag for sale. The purchaser/user can then remove one or more of the individually wrapped articles to place it/them in her purse for later use. One example of one such a packaged product is an overnight ultrathin maxipad sold by The Kendall Confab Retail Group, a division of the assignee of this invention, under the trademark FRESH TIMES®.

The patent literature also includes numerous examples of packages for individual absorbent articles. See for example, United States Letters Patents Nos.: 4,555,022 (Eagon et al.), 4,556,146 (Swanson), 4,765,477 (Fröidh et al.), 5,569,230 (Fisher et al.), and 5,827,251 (Moder) and United States Design Letters Patent No. D336,130.

While the prior art individual packaging is generally suitable for its intended purposes it still leaves much to be desired from various standpoints. For example, if a user wishes to store several articles in her purse, the use of several individually wrapped units will inherently take up considerable space in the purse. Moreover, the individual packages can shift around so as to wind up located in various portions of the purse.

Plural disposable sanitary napkins in a single package have been disclosed in United States Letters Patent Nos.: 4,564,108 (Widlund et al.) and 5,690,625 (Widlund).

Notwithstanding the foregoing a need exists for a package containing plural disposable absorbent sanitary articles which easily accessible to enable the ready retrieval of an article from the package while the remaining articles are kept in a clean protective environment, and which is compact in configuration and aesthetically pleasing.

SUMMARY OF THE INVENTION

The combination of a package and plural absorbent pads, e.g., pantliners. Each of the pads is an elongated generally planar member arranged to be worn by a wearer to trap and collect fluid waste products. Each pad includes a body engaging surface and has a periphery in the form of an opposed pair of end portions and an opposed pair of side portions, with the dimensions of the side portions being longer than the end portions. Each of the pads is folded along a line extending transversely to the side portions of the pad so that its body engaging surface forms the inner surface of the folded pad. The folded pads are stacked on top of each other. The package is formed of a flexible sheet material, e.g., a plastic film, and has a hollow interior into which the stack of pads is located. The package can take various forms, e.g., a pouch, a parallelepiped shaped gusseted member, etc., and has an openable mouth, e.g., a weakened line in a portion of the material making up the package, two overlapping edges of the material making up the package, etc. The openable mouth is located immediately adjacent the stack of pads so that the user can grasp one of the pads to remove it from the package through the openable mouth.

In accordance with one aspect of the invention the folded pads are stacked one atop another with the fold line of each pad being located closely adjacent the fold line of the other pads, and with the openable mouth located closely adjacent the fold lines of the stack so that the user can grasp one of the pads at its fold line to remove it from the package through the openable mouth.

In accordance with another aspect of the invention folded pads are interleaved in the stack so that removal of one pad from the package brings a portion of another

pad to the location of the openable mouth to facilitate the removal of that other pad from the package, when desired.

DESCRIPTION OF THE DRAWING

Fig. 1 is an isometric view of one embodiment of a package, e.g., a "pillow-shaped" pouch, holding plural disposable absorbent articles, e.g., pantliners, constructed in accordance with the subject invention;

Fig. 2 is a top plan view of the package shown in Fig. 1;

Fig. 3 is an enlarged sectional view taken along line 3 - 3 of Fig. 1;

Fig. 4 is an isometric view of another embodiment of a package, e.g., a pouch, holding plural disposable absorbent articles, e.g., pantliners, constructed in accordance with the subject invention;

Fig. 5 is a top plan view of the package shown in Fig. 4;

Fig. 6 is an enlarged sectional view taken along line 6 - 6 of Fig. 4;

Fig. 7 is an isometric view of another embodiment of a package, e.g., a parallelepiped shaped gusseted package, holding plural disposable absorbent articles, e.g., pantliners, constructed in accordance with the subject invention;

Fig. 8 is a top plan view of the package shown in Fig. 7;

Fig. 9 is an end view of the package shown in Fig. 7;

Fig. 10 is an enlarged sectional view taken along line 10 - 10 of Fig. 7;

Fig. 11 is an isometric view of another embodiment of a package, e.g., a parallelepiped shaped gusseted package, holding plural disposable absorbent articles, e.g., pantliners, constructed in accordance with the subject invention;

Fig. 12 is a top plan view of the package shown in Fig. 7; and

Fig. 13 is an enlarged sectional view taken along line 13 - 13 of Fig. 10.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the various figures of the drawing wherein like reference characters refer to like parts, there is shown in Fig. 1 a package 20 holding plural disposable absorbent sanitary articles constructed in accordance with one embodiment of this invention. It should be pointed out that as used herein the term "disposable" means that the article is designed to be used until soiled, either by urination, menses, or otherwise, and then discarded, rather than being washed and used again.

In the embodiment of Fig. 1 the article 22 is in the form of a pantiliner to be worn by a person within an undergarment for trapping urine or menses. Each of the pantliners 22 is of conventional construction, such as those sold by Kendall Confab Retail Group, a division of the assignee of this invention, under the trademark FRESH TIMES®. In the interest of brevity the details of the construction of the pantliners 22 will not be described herein. Suffice it to state that in accordance with one preferred embodiment of this invention each pantliner 22 is a generally planar pad which has an outer sheet or layer 22A formed of a fluid-impervious, e.g., polyethylene, polypropylene or other plastic film material to form a moisture barrier, an inner liner or layer 22B formed of a fluid-pervious, e.g., a non-woven spun bonded or carded web material serving as the coverstock, and an absorbent core (not shown), e.g., an airlaid composite formed of fluff with SAP (super absorbent particles), etc., interposed between the moisture barrier and the coverstock. The top sheet may be formed of a fibrous material over the entire inner surface of the pad, or only over the inner marginal edges of the pad, and not over the intake or "target" zone (i.e., the area at which the body fluid(s) gain(s) ingress into the absorbent pad). That area may be made up of a three dimensional apertured film forming the top layer of the intake/target zone. In addition, a fluid acquisition layer formed of a fibrous material (non-woven) web may be interposed between the top sheet and a core to expedite the transfer and/or trapping of urine/menses in the pad.

The shape or outer perimeter of each pantliner is a matter of choice or design and can be a generally hour-glass shape, a generally rounded rectangular shape, a flat oval shape, an elongated "dog-bone" shape, or any other ergonomically suitable shape.

A "position" adhesive stripe or patch (not shown) is preferably provided on the pantliner to releasably secure the pantliner into the crotch of an undergarment, e.g., a pair of panties, when the pantliner is worn. In particular, in one preferred embodiment the adhesive is located on the outer layer 22A and extends for a substantial distance along the longitudinal axis of the pantliner. A cover strip or release paper (not shown) is releasably secured over the adhesive to protect the adhesive until it is ready to be used.

When worn, the inner layer 22B of the pantiliner faces towards the body of the wearer to absorb urine, menses, etc., while the outer layer 22A prevents the urine/menses from leaking out and soiling the wearer's clothing.

In accordance with one preferred aspect of this invention each of the plural pantliners are folded in half along a transverse fold line 22C and so that the inner layer (the body engaging surface) 22B of the two folded sections abut. This serves to protect and keep the inner layer 22B fresh and clean. The folded pantliners 22 are then stacked one on top of the other and placed within the package 20. The details of the package 20 will be described later. Suffice it to state that the package is formed of a thin flexible sheet material which surrounds the stack of pantliners resulting in a construction that is quite compact and can be easily stored within a purse, pocketbook, etc. For example, package constructed in accordance with this invention can contain up to ten pantliners in a package whose size is approximately 4 inches (10.2 cm) long, 2.5 inches (6.4 cm) wide, and 0.75 inch (1.9 cm) thick, depending upon the thickness of each of the pantliners.

In accordance with one aspect of this invention, e.g., as shown in Figs. 1 and 3, three pantliners 22 are stacked one on top of another within the package 20 so that the fold line 22C of each pantliner in the stack faces in the same direction. That direction, as will be described later, faces towards an openable mouth of the package to facilitate the removal of individual pantliners from the package, while keeping the remaining pantliners neatly folded in the stack within the package to maintain their integrity and freshness.

As best seen in Fig. 1 the package 20 basically comprises a "pillow-shaped" pouch. In particular, the pouch is in the form of a loop 24 (Fig. 3) of a rectangular or square web of any suitable type of flexible plastic film, e.g., like that used for conventional packaging of single pantliners. The loop 24 includes a first marginal edge 24A and a second marginal edge 24B. The first marginal edge overlies and overlaps the second marginal edge 24B to form an openable mouth 26 (Fig. 3) at their interface (i.e., where they overlap). The portions of the web contiguous with the marginal edges 24A and 24B form what can be referred to as the top panel 28 of the package 20. The package also includes what can be known as the a lower panel 30. That panel is located parallel to and spaced from the top panel by a pair of end panels

32 and 34, all of which are made up of portions of the web of material formed into the loop. The package 20 can be made quite small and compact, e.g., 60 mm wide by 80 mm long. The stack of pantliners 22 is located within the interior of the package 20, i.e., between the top and bottom panels as shown in Fig. 3. The top and bottom panels are heat sealed together at 36 along their other marginal edges 24C and 24D to hold the stack of pantliners within the package.

In the embodiment illustrated in Fig. 3 the stack of pantliners is oriented so that the fold lines 22C of each of the pantliners is located adjacent the openable mouth 26. Thus, when a user wishes to remove a pantliner 22 from the package 20, all that she has to do is to insert her thumb and index finger through the openable mouth 26 to grasp the uppermost of the pantliners in the stack adjacent its fold line 22C. Once grasped the pantliner 22 can then be pulled through the mouth 26. Once the pantliner clears the mouth the marginal portions 24A and 24B of the package forming the mouth reclose (move back into their normal overlapping relationship) to effectively reseal the mouth and thereby prevent the ingress of dirt or debris into the package. Even if any dirt or debris should gain ingress into the package via the mouth 26, the fact that the remaining pantliners within the package are folded and stacked so that their body engaging surfaces are not exposed will tend to keep them. If desired, a re-sealable adhesive area 38 (Fig. 2) can be placed at the interface of the marginal portions 24A and 24B forming the package's mouth 26 to hold the mouth closed until a pantliner 22 is to be removed, at which time the adhesive seal 38 can be broken to open the mouth 26 and withdraw the pantliner. Then the mouth can be resealed by the adhesive.

If desired, the pantliners 22 may be stacked and interleaved in the package 20 in a manner akin to that commonly done with purse-size facial tissue packages. To that end the stack of pantliners may be arranged such that they are interleaved and with their fold lines alternating in opposite directions. In particular, the upper most of the two folded portions of the lowermost pantliner in the stack is located between the uppermost and lowermost of the two folded portions of the pantliner immediately above it with the fold line of one pantliner being located adjacent the end panel 32 and the fold line of the other pantliner being located adjacent the end panel 34. The other pantliners in the stack from that point upward are similarly interleaved. Thus, when the topmost pantliner is withdrawn from the package through the mouth, it will carry

with it a portion of the pantiliner immediately below it to facilitate the removal of that lower pantiliner from the package when desired.

In Fig. 4 there is shown an alternative "pouch" type package 100 constructed in accordance with this invention. The package 100 is similar in construction in many respects to the package 20. Thus, in the interest of brevity the same reference numbers will be given for the common components of the packages 20 and 100 and the stack of pantliners 22 therein. The pouch 100 is a U-shaped member 102 formed of a rectangular or square web of any suitable type of flexible plastic film like that used for the package 20. The U-shaped member includes a first marginal edge 102A and a second marginal edge 102B which overlie and abut each other, a third marginal edge 102C and an fourth marginal edge 102D which overlie and abut each other, and a fifth marginal edge 102E and a sixth marginal edge 102F which overlie and abut each other. The portions of the web contiguous with the marginal edges 102A and 102B form the top panel 104 and bottom panel 106, respectively, of the package 100. The bottom panel is located parallel to and spaced from the top panel by an end panel 108. All of the panels are made up of respective portions of the web of material forming the U-shaped member 102. The stack of pantliners 22 is located within the interior of the package 100, i.e., between the top and bottom panels as shown in Fig. 6. The top and bottom panels are heat sealed together at 110 along their abutting marginal edges 102A and 102B, 102C and 102D, and 102E and 102F to hold the stack of pantliners within the package.

A weakened or perforated line 112, in the form of a semi-circle, is located in the top panel 104 centered at the interface of that panel and the end panel 108 as can be seen in Figs. 4 and 5. The weakened line forms the openable mouth for the package 100. In the embodiment illustrated in Figs. 4 - 6 the stack of pantliners is oriented so that the fold lines 22C of each of the pantliners is located adjacent the openable mouth 112. Thus, when a user wishes to remove a pantiliner 22 from the package 20, all that she has to do is break open the perforated line 112 to form the mouth for the package and to insert her thumb and index finger through the mouth to grasp the uppermost of the pantliners in the stack adjacent its fold line 22C. Once grasped the pantiliner 22 can then be pulled through the mouth 112. If desired the stack of pantliners may be interleaved, like that described earlier, to cause a portion of the next

succeeding pantiliner to be pulled out of the mouth of the package 100 after one pantiliner has been pulled therethrough.

In Fig. 7 there is shown another alternative package 200 constructed in accordance with this invention. The package 200 is a generally parallelepiped shaped gusseted package which is somewhat similar in construction to the packages 20 and 100 and is similar in construction to the packaging used for the heretofore identified FRESH TIMES® product. Thus, in the interest of brevity the same reference numbers will be given for the common components of the packages 20, 100 and 200 and the stack of pantliners 22 therein. The package 200 is formed of a web of any suitable type of flexible plastic film like that used for the packages 20 and 100 and includes a first marginal edge 202A (Figs. 7, 8 and 10) and a second marginal edge 202B (Figs. 7 and 10) which overlie and abut each other. The package, being of a generally parallelepiped shape, includes a top panel 204, a bottom panel 206, a pair of gusseted side panels 208 and 210 located between the top and bottom panels, respectively, an inverted end panel 212, and an opposed flanged end panel 214 formed by a heat seal 216 (Fig. 8) extending along the abutting marginal edges 202A and 202B. The bottom panel is located parallel to and spaced from the top panel by the end and side panels to form a hollow interior in which a stack of five pantliners 22 is located. All of the panels of the package 200 are made up of respective portions of the web of material forming the package. The stack of pantliners 22 is located within the interior of the package between the top and bottom panels as shown in Fig. 10.

A weakened or perforated line 216, in the form of a straight line, is located in the inverted end panel 212 centered between the top panel 204 and the bottom panel 206 as can be seen in Figs. 7 and 9. The weakened line 216 forms the openable mouth for the package 200. In the embodiment illustrated in Figs. 7 - 10 the stack of pantliners is oriented so that the fold line 22C of each of the pantliners is located adjacent the openable mouth 216. Thus, when a user wishes to remove a pantiliner 22 from the package 20, all that she has to do is break open the perforated line 216 of the end panel 212 to form the mouth for the package and to insert her thumb and index finger through the mouth to grasp the uppermost of the pantliners in the stack adjacent its fold line 22C. Once grasped the pantiliner 22 can then be pulled through the mouth 216. If desired the stack of pantliners may be interleaved, like that

described earlier, to cause a portion of the next succeeding pantiliner to be pulled out of the mouth of the package 200 after one pantiliner has been pulled therethrough.

In Fig. 11 there is shown another alternative package 300 constructed in accordance with this invention. The package 300 is identical in construction to the package 200 except for the construction of the openable mouth. Thus, in the interest of brevity the same reference numbers will be given for the common components of the packages 200 and 300 and the stack of pantliners 22 therein, and the details of that construction will not be reiterated.

The openable mouth for the package 300 is not located within the end panel 212, but instead is located in the top panel 204. In particular, a weakened or perforated line 312, in the form of a semi-circle, like that described earlier, is located in the top panel 204 centered at the interface of that panel and the end panel 212 as can be seen in Figs. 11 and 12. The stack of pantliners is oriented within the package 300 so that the fold lines 22C of each of the pantliners is located adjacent the openable mouth 312. Thus, when a user wishes to remove a pantiliner 22 from the package 300, all that she has to do is break open the perforated line 312 to form the mouth for the package and to insert her thumb and index finger through the mouth to grasp the uppermost of the pantliners in the stack adjacent its fold line 22C. Once grasped the pantiliner 22 can then be pulled through the mouth 312. If desired the stack of pantliners may be interleaved, like that described earlier, to cause a portion of the next succeeding pantiliner to be pulled out of the mouth of the package 300 after one pantiliner has been pulled therethrough.

It is contemplated that the flexible material used to form the packages of this invention be opaque to hide the contents of the package, so that the pantliners may be held discreetly within a woman's purse or pocketbook. Moreover, the packaging material may have indicia, e.g., floral motifs, geometric patterns, etc., printed thereon or otherwise applied to provide an aesthetically pleasing or decorative appearance.

It should be pointed out at this juncture that other modifications to the packages of this invention are also contemplated. For example, the packages need not be formed of flexible materials, such as plastic films, but may be formed of cardboard or other paperboard stock or other materials used for forming relatively rigid cartons. Moreover, the pantliners need not be folded in two as described above, but may be

folded into more than two sections, if desired. In fact, in some applications, it may be desired to leave the pantliners unfolded within the package.

Without further elaboration the foregoing will so fully illustrate my invention that others may, by applying current or future knowledge, adopt the same for use under various conditions of service.

CLAIMS

1. In combination a package and plural absorbent pads, each of said pads being an elongated generally planar member arranged to be worn by a wearer to trap and collect fluid waste products of the wearer, each of said pads having a body engaging surface and having a periphery in the form of an opposed pair of end portions and an opposed pair of side portions, the dimensions of the side portions being longer than the end portions, each of said pads being folded along a line extending transversely to the side portions thereof, whereupon said body engaging surface of each of said folded pads forms the inner surface of said folded pad, said folded pads being in the form of a stack, said package being formed of a flexible sheet material and having a hollow interior into which said stack of pads is located, said package having an openable mouth, said openable mouth being located immediately adjacent said stack of pads, whereupon a user can grasp one of said pads to remove the grasped pad from the package through said openable mouth.

2. The combination of Claim 1 wherein said folded pads are stacked one atop another with the fold line of each pad being located closely adjacent the fold line of the other pads, and wherein said openable mouth is located closely adjacent said fold lines of said stack of pads, whereupon the user can grasp one of said pads at said fold line to remove the grasped pad from the package through said openable mouth.

3. The combination of Claim 1 wherein said openable mouth comprises a breakable line in said flexible sheet material forming said package.

4. The combination of Claim 2 wherein said openable mouth comprises a breakable line in said flexible sheet material forming said package.

5. The combination of Claim 1 wherein said folded pads are interleaved in said stack, whereupon removal of one pad from said package brings a portion of another pad to the location of the openable mouth to facilitate the removal of said another pad from the package, when desired.

6. The combination of Claim 1 wherein said package is of a parallelepiped shape.

7. The combination of Claim 1 wherein each of said pads comprising a top-sheet, a fluid absorbent core, and a cover sheet, and wherein each of said pads is folded so that said cover sheet forms the exterior surface thereof.

8. The combination of Claim 4 wherein each of said pads comprises an adhesive strip located on said cover sheet.

9. The combination of Claim 1 wherein said package comprises a generally pillow shaped pouch formed of a web of flexible material wrapped into a tube having two marginal edges which overlap each other to form said openable mouth.

10. The combination of Claim 9 wherein said tube includes an opposed pair of ends, each of said ends being sealed.

11. The combination of Claim 1 wherein said package comprises a generally pillow shaped pouch formed of a web of flexible material wrapped into a generally U-shaped configuration, sealed along its marginal edges to form a front panel and a rear panel, one of said front or rear panels including said openable mouth.

12. The combination of Claim 11 wherein said openable mouth comprises a weakened line in said flexible material.

13. The combination of Claim 12 wherein said weakened line is arcuate.

14. The combination of Claim 1 wherein said package is a generally parallelepiped shaped gusseted member formed of a web of flexible material having a front panel, a rear panel, a pair of side panels, and a pair of end panels.

15. The combination of Claim 14 wherein one of said end panels includes said openable mouth.

16. The combination of Claim 15 wherein said openable mouth comprises a weakened line in said flexible material.

5

17. The combination of Claim 16 wherein said weakened line is linear.

18. The combination of Claim 14 wherein one of said front and rear panels includes said openable mouth.

10

19. The combination of Claim 18 wherein said openable mouth comprises a weakened line in said flexible material.

20. The combination of Claim 19 wherein said weakened line is arcuate.

15

21. The combination of Claim 1 wherein said flexible sheet material is opaque to hide the pads from view.

20

22. The combination of Claim 21 wherein said flexible sheet material includes decorative indicia thereon to render the package aesthetically pleasing.

23. The combination of Claim 1 wherein said package is approximately 4 inches (10.2 cm) long, 2.5 inches (6.4 cm) wide, and 0.75 inch (1.9 cm) thick.

